

**Notice of Allowability**

Application No.

10/661,741

Examiner

CHERYL LEWIS

Applicant(s)

TONG ET AL.

Art Unit

2167

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the applicants' communication received on March 17, 2008.
2. ☒ The allowed claim(s) is/are 1-46.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- \* Certified copies not received: \_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application  |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date <u>July 3, 2008</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date ____     | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment  |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance                             |
|  | 9. <input type="checkbox"/> Other ____.  |

/Cheryl Lewis/  
Primary Examiner, Art Unit 2167  
July 3, 2008

### DETAILED ACTION

1. Claims 1-46 are allowed.

### EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with J. Richard Soderberg on July 1, 2008.

3. Claims 23-44 have been amended as follows:

23. (Currently Amended) A computer-readable storage medium containing program code, comprising:

program code for receiving a search query entered by a user;

program code for identifying at least a first population group associated with the user;

program code for determining a first article as being responsive to the search query;

program code for determining a population signal for the first article based at least in part on the first population group;

program code for determining a first ranking score for the first article based at least in part on the population signal; and

program code for outputting, in response to the search query, a search result in which the first article is ranked using the first ranking score.

24. (Currently Amended) The computer-readable storage medium of claim 23, wherein the program code for determining the first population group associated with the user is adapted for determining demographic data associated with the user.

25. (Currently Amended) The computer-readable storage medium of claim 24, wherein determining a demographic data associated with a user comprises determining a likely geographic location for the user.

26. (Currently Amended) The computer-readable storage medium of claim 25, wherein determining a likely geographic location for the user comprises determining at least one of the following: the Internet Protocol address from which the search query was sent; an address input by the user to access a search engine; and demographic data input by the user.

27. (Currently Amended) The computer-readable storage medium of claim 24, wherein determining the demographic data for the user comprises determining at least one of the following: age, age range, sex, race, primary language, secondary language,

location, income, income range, a continent, a region, a country, a state, a county, a city, a gender, an ethnic group, a group, persons with a shared characteristic, persons with a shared interest, persons grouped by a predetermined selection, and internet service provider data.

28. (Currently Amended) The computer-readable storage medium of claim 23, wherein determining the first population group associated with the user comprises determining a demographic data associated with the user.

29. (Currently Amended) The computer-readable storage medium of claim 28, wherein determining the demographic data associated with the user comprises at least one of the following: determining the language of the search query; or determining data associated with previous sender of the search query.

30. (Currently Amended) The computer-readable storage medium of claim 23, wherein determining the first population associated with the user comprises determining a self identification data associated with the user.

31. (Currently Amended) The computer-readable storage medium of claim ~~31~~ 1, wherein the self-identification data is selected from at least one of the following: user registration data, user preference data, and user selected data.

32. (Currently Amended) The computer-readable storage medium of claim 23, wherein determining the first population group associated with the user comprises determining an automatic-identification data associated with the user.

33. (Currently Amended) The computer-readable storage medium of claim 32, wherein the automatic-identification data comprises at least one of the following: an IP address, a domain, and default data obtained by an application associated with the user.

34. (Currently Amended) The computer-readable storage medium of claim 23, wherein the population signal comprises a selection score for the first article in a context of the first population group.

35. (Currently Amended) The computer-readable storage medium of claim 34, wherein the selection score for the first article in the context of the first population group comprises a number of clicks for the first article by members of the first population group for the search query.

36. (Currently Amended) The computer-readable storage medium of claim 34, wherein the population signal comprises a weight relationship between the selection score and the search query.

37. (Currently Amended) The computer-readable storage medium of claim 23, wherein the population signal comprises a number of members of the first population group that selected an article returned for the search query.

38. (Currently Amended) The computer-readable storage medium of claim 23, wherein the population signal comprises a number of members of the first population group that input the search query.

39. (Currently Amended) The computer-readable storage medium of claim 35, wherein the population signal comprises a smoothing factor associated with the clicks.

40. (Currently Amended) The computer-readable storage medium of claim 23, wherein the population signal comprises a total selection score.

41. (Currently Amended) The computer-readable storage medium of claim 40, wherein the total selection score comprises a total number of members of the first population group that selected the first article.

42. (Currently Amended) The computer-readable storage medium of claim 23, further comprising determining a second population associated with the user; and wherein determining the population signal for the first article is further based at least in part on the second population group.

43. (Currently Amended) The computer-readable storage medium of claim 23 further comprising:

program code for determining a second article associated with the search query;  
and

program code for determining a second ranking score for the second article based at least in part on the population score.

44. (Currently Amended) The computer-readable storage medium of claim 43 further comprising program code for ranking the first article and the second article based at least in part on the first ranking score and the second ranking score.

46. (Currently Amended) The computer-readable storage medium of claim 23, wherein the population signal is based at least in part on a total selection score, a selection score based at least in part on the population group, a smoothing factor, a number of times a query was input by members of the population group, or a number of times a query was input.

#### **REASONS FOR ALLOWANCE**

4. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record does not render obvious to one ordinarily skilled in the art at the time of applicant's invention nor anticipate the combination of claimed elements including "identifying at least a first population group associated with the user; determining a first article as being responsive to the search query; determining a population signal for the first article based at least in part on the first population group; determining a first ranking score for the first article based at least in part on the population signal; and outputting, in response to the search query, a search result in which the first article is ranked using the first ranking score" as recited in independent claim 1 and similarly recited in independent claim 23.

Determining a population signal is interpreted as the population processor measures a population signal such as a population signal that reflects or otherwise corresponds to a population associated with a user 112a-n (see paragraph 0022, Publication No. 20050060310). Also, for the population signal function, see paragraphs 0077-0083.

The remaining claims, 2-22 and 24-46, are dependent claims, thus these claims are patently distinct over the art of record for at least the above reasons.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."



**NAME OF CONTACT**

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheryl Lewis whose telephone number is (571) 272-4113. The examiner can normally be reached on 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

(571) 273-4113 (Use this FAX #, only after approval by Examiner, for "INFORMAL" or "DRAFT" communication. Examiners may request that a formal paper/amendment be faxed directly to them on occasions.).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/ Technology Center (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Cheryl Lewis/  
Primary Examiner, Art Unit 2167  
July 3, 2008